THE GENESEE FARMER.

Vol. V. ROCHESTER, FEBRUARY 21, 1835. No. 8.

Published by Luther Tucker.

TERMS —The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50 or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

THE GENESEE FARMER.

SATURDAY, FEB. 21, 1835.

☞ We tender our grateful acknowledgments to those friends who have so liberally supplied us with original communications. It will be perceived that this number is almost entirely composed of their favors; and we have several still on file for an early insertion. We hope, however, that none of our correspondents, or those who intend to furnish communications for the Farmer, will, from this announcement, think we have not need of further assistance. We want a weekly supply so large that we may fill our sheet every week with original communications; and that we have subscribers enough who are qualified to render us this desirable aid, we cannot for a moment doubt. We therefore again tender to them the invitation to come up to our help, by furnishing us such facts and statements in relation to their pursuits as their experience may suggest,—such as they have found useful to themselves, and will be likely to benefit others.

The Bots in Horses.

We had prescribed to ourselves limits in our last number which we could not with propriety exceed; and therefore we omitted to notice the treatment proper for horses under those violent affections which are usually ascribed to the bots. Dr. *Harden* relates that a gentleman in the heat of summer, drove up with a pair of fine grays to a tavern, which were put in the stable; but before they were fed, the boy came to say that one horse had the bots. In disregard of the Doctor's arguments, who went to examine the sufferer, the *entrails of a fowl* were forced down the horse's throat by one farrier, and soon after another farrier dosed him with *copperas*. In the mean time the other horse was taken sick exactly in the same manner; but not until the first horse was dead, would the gentleman consent that the Dr. should prescribe: "He was bled *till he fell*," says Dr. H.; "one ounce of laudanum was poured down his throat, and his flanks well rubbed. In a little time he was well."

This was successful practice, though we doubt the propriety of bleeding to such excess; but Dr. H. further remarks, "A horse is taken with violent colic, rolling on the ground, biting his side, sometimes much swollen, and other times little or none—apparently in great pain. *It is pronounced a case of bots.*——The proper way to treat the horse, would be to give an ounce of laudanum as soon as he is taken; then *bleed until he falls*; while down give two quarts of castor oil, and rub his flanks hard and continually. If he is not much swollen, he will be almost certain to recover; but if he swells very much, and becomes unable to rise, *as a last resort* fearlessly plunge a long bladed knife into his flank *just where there is a curl in the hair*; much air will escape at the wound, and in most instances the horse will recover immediately."

Lemuel Capen says in reference to the foregoing prescription, "I think there is a danger in bleeding any animal *till he falls.* If a horse is violently attacked, first give him laudanum to reduce the spasms. Bleed freely in the jugular vein; and in a few minutes give a dose of castor oil, or of other like medicines." Being a believer in the voraciousness of bots, he also says, "Turn down (the horse's throat) a quart or two of the blood, warm as it flows, or give that quantity of warm milk and molasses."

Peter Ellis who entertained the same opinion, says, "My practice has been to bleed in the jugular vein, and pour the blood down the throat; or bleed in the mouth; or put down milk, whisky, and molasses,—and laudanum when I could get it; or any such like preparation, *to entice them to loose their hold.*"

It appears from an extract in our last number that the bot secures itself to the sides of the horse's stomach by two hooks near its tail, and we would ask what is there in blood, milk, whisky, or molasses, "to make them let go?" If the writer of that extract, was accurate in his observations, as we are inclined to believe, then none of these medicines would make it let go, because it is already prepared without letting go, to feed on those aliments (should it fancy them) exactly as it was previously prepared to feed on the chyme. Then it follows as a necessary consequence that these things will not detach it from its hold, and that no purgative medicines can eject it. And we would remind those who believe in the efficacy of such treatment, that the physician who wishes to dislodge worms from the stomach of a child, first gives a vermifuge: that is, *nothing* that resembles in its effects blood, milk, whiskey, molasses or laudanum, but *something* that will either injure them mechanically as cowhage, or "poison" them as the Carolina pink root. Why then should we hope to dislodge the bots simply by feeding them? Besides the chief action of cathartics is not on the stomach where the bots reside, but on the intestines where they do *not* reside.

Peter Ellis further remarks, (and we quote him that the subject may be fully discussed): "With respect to [Dr. Harden's] treatment of the colic—First to give an ounce of laudanum, then bleed *until the animal falls*, to pour down two quarts of castor oil, &c. Now this treatment would be correct if administered in moderation; but first *bleeding to such an extreme* I should consider dangerous. This together with a double quantity of oil, I should think would render the remedy worse than the disease. As to plunging a knife in the flank of the horse, I have frequently heard of the exploit, but never saw it performed. I have heard of horses dying from the operation, but never heard of one recovering; but *perhaps this was owing to the operation being injudiciously performed.* If this can be done with the same ease and safety that it can in horn cattle, it should be made known to the public, and the place pointed out with great precision. I should be glad to be possessed of that knowledge—it would be of incalculable advantage to the community. Now when cattle are hoven with grass you may fearlessly plunge* your knife in upon *the left side*, midway between the hip and the long ribs, minding to go low enough to miss the short ribs and kidney fat; the paunch is very thin in this place. Some farmers know this; they should teach it to their hired men and boys, all should knew it, from the least to the greatest."

From the reply of *Dr. Harden* to these criticisms, we make the following extracts:——— "These observations coming from a practical man are unfortunate; I wish he had not made them, for they may deter some from using them, and many horses may die because they were not used. The disease is violent and quickly fatal, and the treatment must be bold and energetic. With respect to *free bleeding*, I refer to a writer† in the American Farmer who appears really to be a practical man, and who advocates it better than I can. Of the laudanum Mr. E. may be assured there is no risk in giving one ounce, and *in a very violent case he may give two ounces.* If the case is very alarming, there will be no danger from it, and the horse will be apt to be saved. With respect to the oil, I had more regard to economy than danger when I limited the quantity to *two* bottles: I do assure Mr. E. he may give *four* bottles without fear; *I have given four bottles with success.* It is most easily poured down the nostrils.

"Plunging a knife into the flank, Mr. E. calls an exploit. If you doubt my assertion, let me know, and I will have it proven." We do not doubt *Dr. Harden's* veracity; but if he had stated some CASES in regard to this point, as he has done in other parts of his communications relating to other points,—a practice very common with medical writers,—his recommendation would have been more satisfactory. We would not be understood however, as standing in opposition to his advice: He has only proposed it *as a last resort.*

On Splitting Fire-Wood.

We have lately examined a quantity of fire-wood, which was cut and corded last winter; and we have become still more strongly impressed with the importance of having *every stick split* that is large enough to receive a stroke of the axe, longitudinally. It not only dries better, but some kinds of wood are rendered by this operation nearly of double value; and we are warranted by our examinations in saying that *hickory* is one of those kinds. Sticks of six or

* Only a few weeks ago, our friend *Wm. R. Smith* of Macedon, had a hoven cow most successfully treated in this manner. She had eaten frozen turneps; and *ammonia*, given in the mode recommended at page 303 of our 3d volume, had failed to afford her relief.

† We presume he refers to the following passage: "As soon as you discover symptoms of much pain about the stomach of your horse, bleed him from the neck *a full gallon* (in a vessel that you may know how much you take) and if he is large and of full habits, *two gallons or near it.*" Amer. Far. Vol. 13, page 398. We must observe however, that this writer is *not* an advocate for bleeding *till the animal falls.*

eight inches diameter, which were quartered at that time, are now seasoned, hard and solid; while such as were left to *soak in their sap*, are most miserably worm eaten. The round sticks of bass-wood escaped these depredators, but their value is greatly lessened by incipient decay; and retain too much moisture to be profitably used without kiln-drying. We are persuaded that to split all such wood, and to *let out the sap*, is a most judicious investment of capital.

☞We have only room to invite attention to the advertisement of the Publishers of the *American Gardener's Magazine*, to be found in this paper, and to commend the work to the favor of the public.

☞ We have received Mr. Barrett's new Catalogue of vegetable, herb, tree, flower and grass Seeds, Bulbous Flower Roots, Agricultural Books, &c., for sale at the New-England Seed Store, connected with the New-England Farmer, Nos. 51 & 52, North Market-street, Boston, which may be examined at this office.

COMMUNICATIONS.

Harvesting of Corn.

BY W. G.

Mr. Editor—Some of my opinions respecting the best and most profitable mode of harvesting a crop of corn, were considerably shaken by the communications which appeared in the last volume of the Farmer on this subject, from men whose testimony is of the greatest weight. My impression has been, that to secure the greatest quantity of good sound corn, it was best, as soon as the tops had become somewhat dry, and the ears hard glazed, to top the corn, and let the ears stand on the stalks till the time of gathering, and such of course has generally been my practice. I did this, because I believed that after the top had performed its office of fecundating the plant, it became in a manner useless; and that stalks dry, and leaves withered, however excellent as a fodder for cattle, could do little or nothing towards elaborating the juices necessary for the perfection of the ears. It besides appeared to me that the fresh and green husks which farmers know retain their power of elaborating sap much longer in general than the leaves, were designed by nature to supply the ears with food; and though opposed to the mutilation of plants generally, as the means of increasing their productiveness, topping corn I did not consider as an operation of that kind. When such men, however, as Buel and Colman, maintain a different theory, and backed by experiment, contend that topping corn is hurtful, it certainly becomes minor agriculturists to pause, and test the question thoroughly. These farmers, and others assert, that topping corn is decidedly injurious—that it materially lessens the actual weight of the crop—and, therefore, that allowing the stalk to remain whole till the time of gathering, or else cutting it up close to the bottom, is the preferable mode of harvesting.

These experiments, though so far as they were detailed, they appeared to be very fairly conducted, were not altogether satisfactory to me, as they did not go far enough. Every farmer is sensible, that corn topped becomes more thoroughly dried by exposure to the direct rays of the sun, and must therefore be expected to weigh less at the time of gathering than corn shaded by the tops, or cut up by the bottom and standing in stacks till husked. My corn the past year had been cut up by the bottom, with the exception of a few pieces of rows, before the thought of making any experiments myself on the subject occurred. In order to see, however, whether my ideas of the different rate of shrinkage between topped corn, and that cut up, were correct, I carefully weighed a basket full of ears of each kind, at the time of gathering, and placing them in a dry chamber, where they lay undisturbed, let them remain until the middle of January, when I had both kinds carefully shelled and weighed. By this experiment, it appeared that the corn cut up by the bottom shrunk three pounds in a bushel more than the topped; but this did not mark the extent of the difference, as at the time of shelling, the former was easily distinguished from the latter by its comparative dampness, though both parcels were bright, fine corn. I cannot, therefore, consider the question as entirely put at rest by any experiments that have yet been made, but as the matter is certainly one of importance, I hope that another season will not pass without its being done effectually. In order to do this, all the specimens must not only be weighed and measured at the time of gathering, and at the time of shelling, but be suffered to remain in some position favorable to the evaporation of all dampness until the corn is completely and thoroughly dried, when a careful comparison of the whole would show the true result. W. G.

Prolific Lima Bean.

BY WM. PRINCE & SONS.

L. Tucker, Esq.—We think the point has at length been attained of obtaining a substitute for Lima Beans, suited to a more northern climate than that very tender variety. The *Prolific Lima* is of recent introduction, and not having been cultivated beyond the limits of two or three gardens, is absolutely unknown to the American public. It is white, or rather cream colored, nearly the size of the small Lima, but exceeding it in thickness, and has a peculiarly rich appearance, which is verified by its quality. It fully equals, and it is even contended that it excells both the other Lima varieties in richness, is at least two weeks earlier, and its produce is far greater—we think we may say four-fold. Like the Lima it is used as a shell bean, and we think from its various advantages, it promises to rival that variety even here, and to supersede it in more northern latitudes. We do not invite applications for it, having only a small supply of two bushels, but in the autumn of the present year, all applicants can receive such quantities as they desire. The Dwarf Bonavista Bean also deserves particular notice for its remarkable richness and delicacy, and may be considered as holding the same rank in this respect among the dwarf and bush varieties, that the Lima does among the climbers. It is also exceedingly prolific.

Yours very respectfully,

WM. PRINCE & SONS.

Linnæan Botanic Garden, Flushing, Feb. 9, 1835.

Saltpeter in Candle Wicks.

Mr. Tucker—In consequence of a recommendation in your last year's paper, concerning the use of saltpeter in promoting combustion in candle wicks, and also in adding to their durability, I had a quantity prepared accordingly, but that communication, being indefinite as to the strength of the solution necessary for the attainment of the object proposed, my first efforts proved abortive, for, instead of *promoting* combustion they entirely *prevented* it. But by subsequent experiments, I have been enabled to correct the errors of the first, and also to realize all the advantages proposed by the communication referred to. My errror consisted in having made the first solution too strong. The quantity of niter necessary for fifty dozen of candles is half a pound dissolved in two quarts of water. It is of no importance as it respects combustion, whether the wicks be *wet* or *dry* when dipped, but they should not be suffered to remain long in the solution, and after being dipped in it, should be immediately "wrung out."

I. D.

Fertilizing Properties of Lime.

BY HOLKHAM.

A correspondent of the Farmer doubts the fertilizing properties of lime. It is with a wish of avoiding, rather than commencing, a controversy that we propose a few remarks on this interesting subject. We have no expectation of convincing him, but we are desirous of preventing others from being misled. Keeping this object in view, we will carry out his doubts to their legitimate extent.

1. He doubts the experience of all antiquity Pliny informs us that the Britons were in the constant practice of applying all the calcareous substances with which their country abounded, to the improvement of the soil. The same application was made of these materials by the Romans in the days of Numa.

2. He doubts the septic properties of this substance, by which the animal and vegetable matters in the soil are rapidly made putrescent, and which all chemists concur in believing are decomposed by it.

3. He doubts its power as a solvent, by which vegetable and animal matter are held in a state of solution, and thereby rendered proper food for plants.

4. He doubts its power of diminishing the cohesive and increasing the capillary attraction, whereby the soil is made permeable to the atmosphere, increasing its power of absorption, and rendering it more suitable for the admission of the small fibrous roots of vegetables.

5. He doubts its power, when applied to decomposing vegetable substances of furnishing the atmosphere with a volatile alkaline combination of hydrogen and azote, denominated ammonia, the most powerful of all promoters of vegetation, as may be seen in all cases where substances that contain it are used as manures.

6. He doubts its power of combining with the carbonaceous matter of soils, and thus breaking down and destroying the texture of such animal and vegetable substances as it may contain, by this means making the whole soluble in water and capable of being taken up by the absorbent roots of plants.

7. He doubts its power of destroying different kinds of insects, such as worms, slugs, grubs, snails, &c. which abound in fresh soils, thus furnishing much nutritious matter for promoting the growth of plants.

8. He doubts its having a greater tendency to combine with mucilaginous matter than with fixed alkalies, by which a kind of calcareous soap is formed, that contributes in its liquid state to the growth of plants.

9. He doubts that when mixed with stiff, clayey soils, possessing too great a degree of humidity, it evolves caloric and other elastic matters, while becoming saturated with the moisture and carbenic acid gas which they contain.

10. He doubts that its fine impalpable powdery state enables it to become minutely incorporated with other earths, thus changing and opening their texture and making them more susceptible of vegetable growth.

11. He doubts that when applied to lands containing sulphuric acid, it combines with this acid, and forms a gypseous compound.

12. He doubts its power of neutralizing any acids prejudicial to vegetation, and thus preventing their injurious effects.

13. He doubts its power, under any circumstances, even when connected with magnesia, of forming a sort of epsom salts in sour lands, which has been shown highly favorable to vegetation in certain quantities.

14. He doubts that its combination with carbonic acid in its fluid state, rendering it soluble in water without expanding it into vapor or gas, supplies carbonic matter for the support of vegetation.

15. He doubts its property of super-saturating, or overloading itself with moisture, and thus imparting it to the roots of plants.

16. He doubts that substances earth contains and combines with phosphorus, producing a kind of vapor which renders the phosphorus soluble in water without becoming an acid.

17. He doubts that substances possessing in the highest degree the food of plants, should be used to feed them.

Having thus doubted the merits of all the theories and experiments of Davy, Darwin, Horne, and Priestley, and all the practical conclusions of Young, Sinclair, Nicholson, &c., as well as the universal experience of the human race, from their first discovery of any of the operations of nature, we have but one step to the adoption of the Berkleyan doctrine of spiritual existences. We have, however, to counteract these "doubtful disputants," the invariable practice of the best agricultural nations, who continue to use it with untiring and increasing industry, with what success let the state of cultivation and fertility in all countries where it is used decide.

We have indeed every reason to believe that in the early stages of human existence, mankind were profoundly ignorant. We are told that mystery Babylon the mother of harlots, bewitched them with her sorceries, and that to solve her inscrutable enigmas, the first sin of disobedience was committed; we therefore devoutly hope that although Abraham may have been a better shepherd, and Moses a better chemist than many leaders of the people in this generation, we shall not, in our agricultural achievments, retrograde to the age of the Patriarchs; and after exploding the lurid and superstitious lights exhibited by the Druids, advocate theories and urge opinions that would have left their country where it began instead of making it the garden of the earth.

The present age, notwithstanding the loud cry about utility, seems more occupied with the controversy respecting the *modus operandi* of lime than upon the practical efficacy made manifest by our crops. We should be gratified if our agricultural friends would be convinced that such controversies are endless. That lime is equally beneficial under all circumstances, and in all the situations and modes of combination under which it may be applied by the ingenuity of man, or elaborated in the alembic of nature, is what no reasonable being would either maintain or believe. But its septic or putrefying properties, which render it so transcendantly useful, are no more to be doubted, than that putrefaction must necessarily precede production. And yet lime, the most powerful septic with which nature has furnished the farmer, is often used for opposite purposes, when so confined as to prevent its combination with atmospheric air and moisture, for which it has a powerful affinity. Sir John Pringle ascertained by the most careful experiments that putrefaction advances quicker in confined than in free air; and yet the fixed air given out in the burning of lime is one of the best antiseptics. Sir Humphrey Davy and Doct. Priestly both concur in stating that by means of this air, which is contained in uncalcined limestone in such large quantities, they not only preserved vegetable and animal matter from decomposition, but restored them after putrefaction had commenced. Sir William Lee washed fresh meat with water that had been impregnated with this carbonic acid gas, two or three times per day, and not only recovered it when tainted but preserved it afterwards many days; and upon the same principle Dr. Macbride accounted for the well known fact that lime kilns in the neighborhood of populous cities, by discharging large quantities of this air, corrected and rendered wholesome the air that had been tainted by respiration and putrefaction; and we all use lime as an anti-septic, when the common mode of sprinkling and preserving apples and other vegetables with it is adopted. Hence Sir John Pringle was obliged to account for a conclusion, apparently so repugnant to nature and facts, by ascertaining that the putrid particles in his experiments were kept about the putrefying substances exciting and promoting fermentation, whereas when exposed they were far the most fugitive; and as the air absorbed by lime after burning is more closely confined in a compost bed, than it is when spread upon the surface, a rational man might easily be led to the conclusion that the putrefactive process would be diminished, when the fact is undeniable that it is accelerated. Sir John Pringle's experiments account for this result—the putrefying particles being confined and placed in contact with the remainder of the compost bed, and the air absorbed by lime after burning being better mixed with water than common air, hastens decomposition, and thus a little leaven leaveneth the whole lump.

We could now adduce a number of facts to prove that putrified substances have been successfully used to preserve others from putrefaction, and that when completely saturated with the putrid effluvium they are incapable of receiving more. Certain quantities of salt taken in aliment promote decomposition and digestion, whereas other quantities are wonderfully anti-septic. Here then we see abundance of facts to keep men of ingenious and inquiring minds constantly occupied in argument.

We beg leave to caution our brethren against the inference that when vegetable and animal matter contained in the soil is decomposed and putrefied, it becomes lost. On the contrary the opposite conclusion is equally just. In this state it is often preserved many years, and it is only by repeatedly removing the productions of the soil without replenishing it, that such land becomes sterile—it is only when vegetable and animal matter is suffered to decompose in the open air that they can be said to be lost; and even then nature returns them in part to the earth by the power of absorption, and also furnishes vegetables with food from this air absorbed by their leaves. Calcined limestone possesses a powerful attraction for moisture as well as for carbonic acid gas; hence the fertilizing properties of this impalpable powder are not diminished by using—the removal of the growing vegetables without replenishing is what is to be guarded against.

While we wish not to be understood as censuring, but rather applauding, those who are engaged in making chemical experiments that enlarge the boundaries of our knowledge, we cordially concur in the opinion of the Ohio correspondent of the farmer, that agriculture is a practical concern, and that by acting up to the full extent of our knowledge we shall advance the science more than by searching after principles and forming systems upon which we seldom act. We all know but little, and they that know the most know best how little they do know.

HOLKHAM.

Brief Hints.--No. V.

BOOK FARMING, &c.

There is a class of Farmers who sneer at all agricultural publications, and denounce as "book-farmers" those who pay attention to what such papers contain.

This contempt of book-farmers and book-farming, reminds one of the supercilious demeanor of the British Regulars towards our Yankee Militiamen. The Red coated troops who had followed the drum from their youth, could not brook the idea of being encountered by shoemakers, tailors and other patriotic tradesmen who seized arms (as many do the hoe or axe) with the resolution of fighting their way as well as they could in a cause to which their best feelings were devoted. But the enthusiastic zeal and perseverance of the *irregular* Yankees effected a *glorious Revolution*, in spite of the arrogance of the *regular* soldiery; and it is a remarkable fact that Farming is of late years particularly indebted for its improvement as a science to those enlightened men who abandoned other pursuits to gratify their zeal for agricultural knowledge.

I would by no means slight the practical skill of *regular bred* farmers—but would respectfully hint to them that it is quite possible even *they* might be benefitted by the scientific knowledge of

men who never held a plough or swung an axe. The capacities of different soils and the phenomena of vegetation are matters which *may* be understood without a seven-years' campaign in a corn-field—and the common sense of some men who never yoked a pair of cattle has led to improvements in the care of stock for which the public are largely indebted to them.

Let it not be imagined that I would ask practical farmers to adopt *without the closest scrutiny* the Reforms which may be recommended to them by those who theorize on Agriculture. On the contrary, it is the design of this article to condemn *only* that blind devotion to old practices and old prejudices which prevents too many farmers from scrutinizing with proper attention the improvements in theory and practice to which the last quarter century has given birth. Rho.

Culture of the Vine.

BY T. S. P.

It is by no means probable, that any person who has once enjoyed the comforts of even a tolerable supply of good fruit, will be at all willing to give i up while it can be secured by a little exertion. He will rather seek to enlarge his collection, not only by different varieties of such kinds as he may possess, but by the introduction of other species. He will even desire a succession, and endeavor to concentrate on his own grounds and within his little paradise whatever is readily obtainable, that may contribute to his and his family's innocent gratifications. All this is entirely within the power of every farmer. None is so constantly employed as not to have time frequently to devote a few hours, and occasionally a day, to the attainment of such an object. If all our idle moments were employed thus usefully, our premises might exhibit an improvement and an aspect of comfort, to which they are now in many instances entire strangers.

Since I have been a reader of the Genesee Farmer, I have seen but few communications on the cultivation of the Vine. I am not aware that the interest which the subject has attracted for several years is at all diminished; on the contrary, as far as my knowledge extends, it has rather increased. Still, however, many are deterred from a persuasion that the management of grape vines requires great skill; and that it is only the favored few, who have ample leisure to indulge their tastes, that can successfully undertake it. From the experience I have had, I am convinced that such an opinion is entirely erroneous. The propagation and successful treatment of the vine are involved in no mystery. Our American vines, of which there are many valuable kinds, flourish in almost every variety of soil, and repay by an abundant product the care of the cultivator. They require no protection in winter, and the summer's sun does not scorch their foliage.

In regard to the European species, it must be confessed it has not answered the expectations that were formed of its value some years ago. However superior may be the quality of the fruit when brought to perfection, the foreign vine appears to be by no means adapted to the vicissitudes of our climate. It is perhaps only in cities that it can be cultivated to advantage. In such places the atmosphere is drier and warmer, and the vine is effectually sheltered from the severity of our winters. Under such fortunate circumstances, it will flourish for several years, and mature its fruit without disappointment to the owner. In towns also, a very small space will suffice for the production of a large quantity of grapes.—The roots grow with great strength and vigor under a brick pavement, and a neat arbor attached to the side of a house in a suitable place, has rather an ornamental appearance, especially when the numerous clusters are seen depending beneath it. Some years ago I saw a vine in Philadelphia, the stem of which had been led to the roof of a three storied house, and thence spread over an arbor of considerable dimensions, which yielded most abundantly even at such an extraordinary elevation.

Although I have no reason to entertain a very favorable opinion of the capabilities of the foreign vine to withstand our climate, yet I cannot forbear to give such directions for its treatment and culture in the open ground, as may be followed by some degree of success. With proper care, it may produce well for two or three seasons; after which the roots become exhausted, and the young branches feeble and sterile. Every autumn, after the fall of the leaf, the vines should be pruned, and protected from the frost by laying them down and covering every part with earth to the depth of several inches. In the spring they should be uncovered and set upright before the buds begin to expand. I would advise that they should be permitted to bear freely as long as they retain sufficient strength, which will seldom exceed three years. By the expiration of that time, other plants should be in readiness to take their places; or, which would be more desirable, they should be planted permanently elsewhere in time to attain the requisite size to succeed immediately those which have become past bearing. It is true, that this is rather a tedious business; but a small number of vines may be readily managed in this manner, and the delicious quality of the fruit will certainly justify some extra trouble.

But it is on our own native vines that the chief dependance must be placed, both for the table and the vintage. Every person who is competent to the management of his own affairs, may, with a little instruction, cultivate them with entire success. I will point out two modes to propagate them, and endeavor to describe each so as to render it intelligible.

The most common way of increasing the vine is by *cuttings*. These should be twelve or eighteen inches long, with from three to five or more joints. The base of the cutting should be immediately below a joint, and the top as far above as the space will allow. The best time for planting is in the fall, as soon as convenient after the vine has dropped its leaves. The cutting will frequently begin to take root before the commencement of cold weather, and the roots will be gradually extending themselves whenever the state of the ground will permit. Some which I planted early last fall, have now roots five or six inches in length. The bud, however, will not expand before spring. When cuttings are set out in the spring, they should be soaked several hours in water previous to planting. As soon as the weather becomes warm, the buds will readily sprout and begin to show leaves. This is the most critical time, because the cutting has not yet begun to throw out roots; and in case of dry weather, the young shoots must be shaded, or the ground watered. If it is desirable to plant the cuttings where they are permanently to stand, which is certainly to be recommended when convenient, holes should be dug about the size of those requisite for planting peach or apple trees, of the same depth, and seven or eight feet distant. Let the clay be thrown aside, and the soil, mixed with some well rotted manure, be used for filling in. It is best to put several cuttings in each hole, and if more than one should live, the strongest should be left, and the rest transplanted. Give the cuttings an inclination from the bottom of one side of the hole to the top of the opposite,—if leaned towards the south, it will be more convenient for shading,—the uppermost eye being level with the surface of the ground. Only one shoot should be permitted to grow from each plant, which may be trained to a small stake until it is necessary to make a trellis or other suitable fixture for the support of the vines.

The other mode of propagation, and the most expeditious to obtain fruit, is by engrafting. A great advantage attending this practice is, that any vine, however worthless, may be forced to yield fruit of excellent quality. In one year, if the stock has not been recently removed, the graft will attain sufficient size to bear a number of grapes. I have some at this time which were grafted last spring, that are already large enough to produce a hundred bunches next summer without injury. The graft should have not less than two buds—a single one will sometimes grow, but not so certainly. The stock may be about an inch or something less in diameter, and sawed off five or six inches beneath the surface of the ground for the insertion of the scion. The best mode of performing the operation, when the stock is of the size recommended, is by *cleft* grafting. It should always be taken off at a suitable distance—say an inch and a half, or two inches, *above a joint;* and the end of the graft must be forced down as near to the joint as possible, making the insertion in such a manner that the barks of both pieces may come in contact on one side. A leaf or piece of paper may be placed over the opening to prevent the earth from getting in; after which the earth should be raised high enough to cover the buds. If the stock should be small, *whip or tongue* grafting is preferable. I have never found any difficulty, when the scions were good, in getting them to grow; the stock and graft uniting as readily as in any other plants subjected to a similar process. Indeed some writers, one of whom I know to be a man in whose character there is no guile nor deception, and to whom the country is greatly indebted for his exertions in this department of horticulture, have averred that even boring into the stock with a gimblet, and fitting the graft therein, is sufficient to ensure success in most cases. With me, however, it has generally failed, though I have sometimes seen it answer. There is no necessity for using clay or any other composition in grafting vines.

In regard to the *proper time for grafting*, if the root or stock is not intended to be removed, the operation should not be performed until the buds shall have considerably expanded. By this

time the sap will have become of a viscid consistency, whereby the union of the parts will be greatly facilitated. At an earlier period, the graft will be drenched by the copious weeping, which will at the same time materially impair the vigor of the roots. If, however, it should be necessary to transplant the stocks, in order to have them in a more convenient place, the grafting should be done much sooner. Under these circumstances, I have succeeded best by doing the work very early in the spring. There is no danger that the graft will perish; and the very gradual supply of sap which ensues, will not be more than sufficient to effect the junction and support the young shoots. Altogether, I think the operator will more generally succeed by making use of stocks that have been removed, in preference to the others; but the growth from the latter will be much more luxuriant, and the chances of success may also be increased by inserting two or more grafts upon the same root. In every case, whether the plants be raised from cuttings or grafts, but more particularly the former, it will be highly necessary to keep the ground clean of weeds and grass, or the objects of our solicitude will certainly perish or be stunted in their growth.

The subject of pruning and training might perhaps be postponed for the present; but as it is very probable, that many persons have vines without being fully acquainted with these portions of their management, a few brief directions may not be out of place. Undoubtedly the neatest fixture for the support of the vines, is the trellis. The arbor fashion has its merits, but it cannot be extensively used with convenience. The trellis also combines more advantages than any other mode which I have seen adopted. A row of vines along the border, or elsewhere, makes a rich and beautiful display when trained with some degree of taste. The posts for the trellis should be about five feet high *above* the ground, and ranged with precision; on which four or five rows of slats should be securely nailed, the highest one on the top of the stakes. Over this framework the branches ought to be regularly disposed, so as to allow a free admission of the sun and air to the fruit. The chief principle to be observed in pruning, where this mode of training is adopted, is to have a single stem as high as the lowest slat, at which point the branches should begin to diverge. The same principle is to be extended according to the growth and strength of the vine, until the third or fourth slat is reached, by successive prunings. This will be in three or four years from the cutting, and in a shorter time from the graft. Thus, when the vine comes into full bearing, the whole trellis to the height mentioned should, upon being pruned, be judiciously occupied by the various portions of the plant. In all cases of native grapes, the pruning should be so regulated as to allow an abundant product; for our native vines are impatient of restraint, and if too much restricted in bearing, the young fruit is *cast*, and all the efforts of the plant are directed to the formation of wood. This is particularly the case with the Isabella. The practice of topping the branches, that a greater proportion of nourishment may be returned to the clusters, is not to be justified, either by the results or by any law in the vegetable economy, that I am aware of. But on very luxuriant vines, *leafing* appears to a certain extent to be indispensable, because the presence of the foliage, by preventing a free circulation of air, stifles the grapes and renders them meagre and acid. Defoliation, however, should obviously be carried no farther than barely to attain the object in view, and sparingly repeated as occasion may require. The interleaves or suckers should in all cases be plucked out wherever their growth can possibly interfere with the development of the fruit.

It was my intention to furnish brief descriptions of some of the most valuable grapes now in cultivation among us; but this communication has already been extended to a greater length than I anticipated. Of all the American kinds, pre-eminence is generally conceded to the *Catawba*. It is a great and certain bearer, perfectly hardy, and valuable both for the table and wine. The *Isabella* has a pleasant flavor, is also an abundant bearer, and deserves a place in every collection of fruit. The *Bland* is perhaps the most delicious of all our native grapes, being but little inferior to some of the best foreign varieties in point of flavor. Of foreign grapes, the *August Muscadine*, or *Early White Sweet water*, is a fruit of great excellence. As far as I can judge, it is identical with the *Golden Chasselas*. The *Meunier*, or *Miller of Burgundy*, has a delightful vinous flavor. The berries and bunches are small, but they ripen well. The *Black Muscat of Alexandria*, described in Prince's Treatise under the name of *Norton's Oval Purple*, is a most delicious grape. The bunches are very large, the berries about the size of damsons, not subject to the rot, but requiring some protection from birds. These three are good bearers, and frequently withstand the severity of our winters without injury. There are also other kinds of considerable merit, both native and foreign; but those which I have mentioned are amply sufficient to furnish any family with a succession of choice fruit, equally wholesome and palatable.

Virginia, 3 mo. 5th, 1835. T. S. P.

Mr. Halsey's Report Reviewed.

NUMBER SIX.

In the five preceding essays, a general review has been taken of Mr. Halsey's Report, so far as it relates to the two experiments that have been instituted in this State, at different times, to improve Agriculture, by legislative enactments, and the agency of Agricultural Societies. It is believed, considerations have been suggested, which cannot fail of producing in the minds of candid readers, a satisfactory conviction, that Mr. Halsey and his associates have, in regard to several important points, taken an untenable position. There are several incidental remarks, made by the committee, and embodied in their report, which, to say the least, are of doubtful validity; and some of them evidently merit a more particular investigation.

The committee object altogether to exciting agencies as improper means to be employed for the furtherance of Agriculture. So fully are their minds settled on this point, and so improper, so immoral, and so paralysing to all healthy and useful effort, do they consider public excitements, when got up for the improvement of Agriculture, that they advert to the subject very frequently in terms of their utmost disapprobation. It will be necessary here to quote some of their language on the subject. They say, "They do not believe, that getting up a general strife, or excitement, is the best mode of improving our Agricultural system." They say further, "All excitements tend to impair the natural and proper action of the moral, as well as the physical powers; and pernicious consequences flow from undue public excitements, as are produced in individual cases." The appalling views taken by the committee of the immoral and dangerous tendency of excitements, when connected with the proceedings of Agricultural Societies, were noticed in one of the preceding essays. Such then being the views of the committee, it will readily be conceded, that the doctrines of excitement form an interesting subject of inquiry.

It is believed, the committee are no less unfortunate in the position they have taken, in regard to public excitements, than they were in other things that have been noticed. I venture to say that, if exciting agencies are to fall under proscription, and be entirely discontinued, that self same moment when this takes place, all the wheels, by which useful enterprise is put in motion and kept in progress, will cease to move. Agriculture will advance no more; but it will take a retrogressive course. No further improvements will be made in the arts and sciences. Canals and railways will cease to be the subjects of enterprise. All those noble works of art, which have been recently achieved in this state, will sink into disrepute, get out of repair, and, in a little time, become useless, and be discontinued. Civilization itself cannot long survive the shock it will receive, if excitements to praiseworthy actions are to be disallowed and discontinued.

The views of the committee on this subject, are evidently at variance with the general sense, and the universal practice of mankind. For illustrations of this remark, I might successfully appeal to all history, profane and sacred, ancient and modern. But my limits will scarcely allow me to draw any thing from the inexhaustible treasures of history. When was it, and where was it,—in what country, or in what age of the world was it, that any public enterprise, important public improvement, or revolution, was achieved, or attempted to be achieved, without the employment of exciting agencies? Some of my readers may remember the means that were employed, in achieving the American revolution. On that occasion, no pains were spared to get up, as the committee call it, 'a general strife, or excitement.' The doctrine of the committee, that all excitements tend to impair moral and physical action, was not the popular creed in those times. Had it been so, the emancipation of the country from British thraldom, would not have been achieved. It is not known, that the fitness and moral rectitude of the means thus employed, were called in question at that day, or that they have subsequently been the subject of censorious remark.

Turning from the revolutionary movements of former times, we will now advert to the manner in which public enterprises are set in motion, and carried on, at the present day. We will take for example the temperance reformation, so popular in this land, and some other countries. What are the means that have been employed, and chiefly relied upon, in achieving this mighty revolution in the empire of morals? The press

was put in requisition for the aid of this benevolent and all-important enterprise. Ministers preached lucidly and persuasively on the subject—agents traveled—temperance societies were formed in all parts of the land—addresses on the subject of temperance, were delivered in every town and parish in the country. These, surely, are exciting means, and these are the means that have been successfully used, in carrying on the temperance reformation. Does any one suppose that individual and unexcited effort could have availed any thing, in attempting to achieve this difficult enterprise?

We will take another case, that of the benevolent project, now so popular in the religious community, of evangelizing the world. What gave impulse to the mighty movements, now going on for the accomplishment of this sublime object? And by the agency of what means are these movements sustained and accelerated? A system of means, all tending to produce excitement, has been employed, and is still employed, for the execution of these benevolent designs. Ministers preach powerful and melting sermons on the subject. Bible Societies, Missionary Societies, Tract Societies, and Education Societies are instituted and multiplied, in all parts of our own land, and in other countries. Agents also travel, and deliver persuasive addresses on the subject. Missionaries forsake their beloved homes, bid farewell to their native lands, and to kindred and friends near and dear, to explore inhospitable and Pagan climes, with intent to plant *there*, in an uncongenial soil, "The Rose of Sharon, and the Lily of the Valley." Is not this a system of excitements?

It is believed these examples are sufficient to show what is the general sense and practice of mankind, in regard to the use of excitatory means, when important public enterprises are to be achieved. It is, doubtless, a truth susceptible of satisfactory proof, that no project for extensively improving the condition of society, in things either temporal or spiritual, was ever successfully executed, without the employment of exciting agencies. Excitement is a strong moral power, a mighty lever, by the use of which obstacles can be removed, which without its use, would bid defiance to all human effort.

It is worthy of remark, that the doctrines of excitement, thus universally believed and practiced, are well sustained by scriptural authorities. For what purpose are Ministers required to preach the Gospel? Not merely to impart instruction, but to present motives, to urge and persuade sinners to repentance, and evangelical obedience. Such has been the practice of faithful ministers, in all ages of the church. The system of grace revealed to this apostate world, seems to be a plan of operations to be carried on, through the instrumentality of exciting agencies. As incentives to virtuous action, rewards are offered. Those who read the Bible, know that a life of evangelical obedience is compared in Scripture, sometimes to a race of competition, where the successful competitor is to obtain a prize. Thus, the Apostle Paul 'pressed forward,' as he says, 'towards the mark for the *prize* of the high calling of God in Christ Jesus.' Sometimes, it is compared to a warfare, in which the combatants are stimulated to valiant effort, and heroic action, by the offer of rewards. Thus it is written, "To him that overcometh, will I give to eat of the tree of life, which is in the midst of the Paradise of God." And again, "To him that overcometh, will I give to eat of the hidden manna, and I will give him a white stone, &c." The sacred Scriptures are replete with similar incentives to holy living. Accordingly, 'Moses had respect unto the recompence of reward.' These remarks, I admit, might be more appropriate to the use of a religious journal, but in order to remove all doubts as to the propriety, and moral rectitude of stimulating to praiseworthy actions, by the offer of rewards, I have thought it proper to introduce them here.

I am ready now to submit to my readers the question, whether the remarks of Mr. Halsey and his associates, on the use and tendency of public excitements, are not altogether incorrect. It is not conceded, however, that all public excitements are morally lawful and beneficial. Such excitements may be, and they often are, employed for nefarious purposes. These are the weapons chiefly relied upon, by the powers of darkness, in waging and carrying on their unholy warfares. On this subject, then, the only correct conclusion seems to be, that public excitements operate as a strong moral power, and are necessary to the successful achievment of all public enterprises, whether useful or pernicious, whether holy or unholy. When employed for benevolent and useful purposes, they are praiseworthy; but when used for the accomplishment of nefarious and pernicious devices, they merit only censure, rebuke, and detestation SENEX.

January, 1835.

Cattle and Sheep Husbandry.

BY W.

In a late number of the Genesee Farmer, an invitation was given to farmers generally, to offer what they knew about their own stock. The object I understand to be, that something useful may be culled out of the whole mass.

In treating of my own experience and practice, I frankly own that it will fall short, very much, of that of some of my neighbors; and I have a higher motive than applause for offering this for publication, viz: an apology for a numerous class of farmers, including myself, for not doing better than we do. My farm is small—I bought it almost without fence or buildings. I put on such as were indispensable, as my means would permit; and, to speak safely, I have increased the products of my land 100 per cent. After all, I am a little in debt, and can ill afford to have all that is desirable for the accommodation of animals, such as sheds, stables, &c. Now thousands of our farmers are in the same predicament. They are doing all that their means and knowledge will permit; and instead of censure, they are deserving of applause. We might derive much benefit from agricultural papers, but on that subject a surprising apathy, or rather prejudice, prevails, for which I can offer a reason but no apology.

I said my farm was small, but it supports a heavy stock, for its number of acres. This I am enabled to do by increasing as much as possible the quantity of animal food, and of saving it. Hay is my principal dependence, but I make large account of corn fodder, straw, potatoes, and sometimes cabbage and turneps. My cattle I consider to be strictly of the native breed; but as I have sometimes crossed with fine looking animals as opportunity has offered, it is likely that some of them may claim akin to imported blood. In this way I have obtained some specimens that would not suffer in comparison with many I have seen at our public exhibitions. In my mode of feeding there is nothing worthy of particular remark. If I had convenient stabling, I should use it; but I had rather have my cattle in the open air, with their bellies full, than have them hungry in a warm stable. I have seldom seen cattle appear to suffer much when bountifully fed, with a high tight fence, and the broadside of the barn for a shelter and with plenty of straw to lie on. In storms of cold rain and sleet, all animals should be housed, and I make it a point to shelter all I can, leaving out only the hardiest. I have often seen cattle fed plentifully, with good feed, and at the same time fall off rapidly in flesh. This is caused by not suiting the quality to the appetite. Straw and butt stalks are good in cold weather, but will not answer when stock is first taken from the pasture—their appetites are poor for dry feed—the best hay should then be given; and as the cold increases, coarser feed may be offered. The same rule should be observed in mid-winter, in case of open thawy weather. They will then require better feed. A little attention to this particular, will be found of great use—every thing will be eaten and nothing lost, and the mortification be saved, of seeing your stock, in a fine condition, become suddenly poor.

As it is expensive raising cattle from poverty, I hold it bad economy to over stock—the lack of numbers is amply made up by the healthy condition of the few. It is well to err on the safe side. He that stocks within his means will sometimes sell hay to his neighbors, for fifteen dollars per ton, but what can be more ruinous than to purchase at that price, to keep alive a herd of starving cattle. It is the most unpleasant circumstance of a farmer's life.

When cattle have been brought through the winter, to the opening of spring, it is a common error to suppose the task is over. This is a critical time, and cows especially never want so much attention. The best of hay will not be sufficient—potatoes, roots and other good things, should be resorted to.

I made an experiment last April, with cut hay and shorts, for five new milch cows, which equaled my expectations. My potatoes were expended, and half a bushel of cut hay soaked, and two quarts of shorts were given, morning and evening, to each cow. It was eaten with great avidity, and appeared to satisfy them. I think I shall continue the practice, and recommend it to others.

I have a great opinion of cutting, not only straw, but stalks and hay, but the common mode is laborious.

Broken straw may be profitably disposed of by salting and mixing with hay, even in the spring. I have long practiced it, and with advantage—when the straw is long, I have trampled it with horses on the threshing floor—then sprinkled it with brine until it was moist—then intermix the hay—one third or fourth its quantity is sufficient. The finest hay should be chosen, even wild hay is preferable to rank timothy and clover. It is im-

portant that the mixing should be well performed, or the hay will be culled out. When it is done it should be stowed away and trampled down in a compact body that it may retain its moisture. I find my cattle always eat it freely and without waste; but for cows after calving there is no object in cheating them.

As to sheep, my story will be short. I seldom have more than fifty. I commenced ten or twelve years ago with a dozen of the best I could find, in reference to carcase. To these I put yearly the best merino buck I could get. As my flock increased, I put off the old ones. For some years past I have had saxon bucks, instead of merino, and my flock now may be called saxon merinos—for size, beauty, and weight of fleece, they excell. Last spring the average weight of my fleece was three pounds and seven ounces of clean washed wool, including yearling lambs, which constituted more than a fourth of their number.

I have seen it stated as a fact, that fine wooled sheep did not breed the first year. This I know to be incorrect, for my yearlings are as regular in that respect as my old ones, and rather more so, as I have had several of my best ewes fail annually.

To sum up all, plentiful and judicious feeding is the principal thing in cattle and sheep husbandry. If I thought it would be useful, I would at another time give a description of cattle husbandry on a handsome scale, as practiced by a gentleman of my acquaintance. W.

On Fruit Trees Gnawed by Mice.

BY X.

Some years ago I had two apple trees gnawed all round under the snow by the mice. Unwilling to lose them, I raised round them, mounds of earth; and both putting out roots *above the gnawed parts*, continued to grow, though with some diminution of vigor. I found after a few years however, that they would never make good trees; they gradually declined, and both have long since disappeared from the orchard.

I have seen a tree which was treated in a different manner. The bark *above* and *below* the damaged parts, was connected together by strips of a live branch, which were inlaid or grafted, so that the juice could descend through those strips, and deposit the new wood as formerly, on the lower parts of the tree. This prevented *strangulation*; and restored it to the full use of its roots.

The important difference between these two methods, should be better understood. In the first case, the tree loses the use of all its old roots, perhaps after the first season,—for the sap-wood or alburnum in consequence of being uncovered, must soon lose its vitality, and be incapable of transmitting the sap from the roots to the branches. All below the girdled part, then must become useless. The tree is reduced to the situation of a *cutting*, depending for its support entirely on its new roots; and as most of our fruit trees cannot be propagated in this manner, we are not to expect that these roots can act with the same vigor as those which originated from the primitive radicle. The Chinese method of *dwarfing* trees will fully illustrate this position. A branch by girdling and moist earth is induced to put out roots; it is then removed and planted; but it always continues a dwarf, because it never acquires the strength and energy of the original tree.

I would remark that the case is different with the willow and the Lombardy poplar, cuttings of which root freely and grow vigorously. And further that when the bark of a fruit tree is partially and not entirely removed, the tree may often be saved by raising a mound of earth which prevents the lacerated parts from drying; and even when the bark is wholly gone, and it is intended to connect the upper and lower lips of the wound by strips or grafts, the tree as soon as the injury is discovered, should be protected by earth or a plaster of some kind, from the drying effects of the sun and air. X.

Food of Plants.

BY R. M. W.

Mr. Tucker—Your correspondent, the Ohio Farmer, (Genesee Farmer, vol. 4, page 389,) refers to Turner's Chemistry, page 411, and asserts that there is other food of plants than carbonic acid gas. Will he have the goodness to say what this other food is, as I have not the book at hand. I am aware that it has been contended that plants contain, say sugar, potash, narcotic juice, and many other ingredients, and that these being found in plants is evidence that they are a part of their food. On this subject I am somewhat sceptical. We find in clover much gypsum; in wheat, some lime; in sugar maple and sugar cane much sugar; but it can hardly be contended that these form a part of their food. Mr. Dean and others have contended that because these are found in certain plants, we are to conclude that they form a part of their food, but I think otherwise, and I believe, if the Ohio Farmer, or any other, will investigate the subject, they will be convinced that they form no part of the food, but are derived from another source.

Dec. 19, 1834. R. M. W.

☞List of payments next week.

This day is published, the

American Gardener's Magazine

And Register of all Useful Discoveries and Improvements in Horticulture and Rural Affairs, No. 2, for February, 1835. Contents:—Art. I. On the Cultivation of the Grape Vine in pots. By the Conductors.—Art. II. On the future progress of Gardening in America. By Grant Thorburn, Esq.—Art. III. On the Propagation of the Grape Vine; with observations on its Management, Pruning, &c., in the Green House and Grapery, and the Formation of Vine Borders. By J. W. Russell, superintendent at Mount Auburn.—Art. IV. Remarks on the difficulty of identifying the Varieties of Fruits. By R. Manning, Esq.—Art. V. Observations on some of the Insects which infest Trees and Plants; with Hints on a Method of their Destruction. By B. Hale Ives.—Art. VI. On the Management of the Gladiolus natalensis, (called by some psittacinus,) with a colored drawing of the Flower. By S. Sweetser.—Art. VII. On the Cultivation of Lobelia cardinalis, fulgens, splendens, syphilitica and speciosa. By the Conductors.—Art. VIII. Remarks on the best Method of obtaining double Flowers of the Stock and Gilliflower. By J. W. Russell.—Art. IX. Cultivation of the Salvia splendens, fulgens and mexicana. By the Conductors.

Reviews and Extracts of Works on Horticulture.

Miscellaneous Intelligence.—Art. I. General Notices.—Art. II. Foreign Notices.—Art. III. Domestic Notices.—Art. IV. Calls at Gardens and Nurseries.—Art. V. Queries, Criticisms, &c.—Art. VI. Quincy Market.—Art. VII. Report of the Massachusetts Horticultural Society. Monthly Calendar of Horticulture and Florticulture.

Extract from the Prospectus of the Work.—"Since the formation of the Massachusetts Horticultural Society, the science of Horticulture and Gardening has received a new impulse. By the united efforts, the influence, and the extraordinary zeal of those who were its original founders, the taste for its pleasant and delightful pursuits has wonderfully increased; its objects have become far more extended, and new sources opened for the introduction of all the new and choice productions, which will add value and beauty to the fruit or pleasure garden With this manifestly increased interest, which seems to have been so universally diffused through the public mind, the subject appears to demand some work containing more comprehensive and useful information, than any to which, at present, they can have access.

The conductors have, for many years, devoted much time to the subject, and of late, have given it their exclusive attention. They are still extensively engaged in practice, and trust that they shall often have the pleasure of making known the results of their observations and experiments. They would respectfully solicit communications from their friends, and all those interested in Horticulture through the country."

This work will be continued monthly, printed on fine paper, octavo size, at three dollars per year.

Subscriptions received by Messrs. *Reynolds & Bateham*, Rochester, and *Geo. C. Thorburn* New York.

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Boston, February 1, 1835. 3t

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Feb. 9, 1835. 3t

Instruction in Winter.

As each age of our life has duties belonging to it, which are in a measure peculiar to itself: as a child is bound to some acts to which a man is not equally bound; so each season of the year has duties, which differ in degree or kind from those of the other seasons, and spring, summer, autumn and winter are distinctly marked by these human duties, as well as by the signs of the zodiac.

The two principal duties, which, though belonging to all the seasons, seem to be peculiarly attendant on the season of winter, are those of instruction, and of charity; and of those duties I would now speak.

First, of instructiou. In the warm portion of our year when the sun reigns, and the fields are carpeted with herbs and flowers, and the forest is loaded with riches and magnificence, nature seems to insist on instructing us herself, and in her own easy, insensible way. In the mild and whispering air there is an invitation to go abroad; we are in a school where all may learn, without trouble or tasking, and where we may be sure to learn if we will simply open our hearts. But stern winter comes, and drives us back into our towns and houses, and there we must sit down, and learn and teach with serious application of the mind, and by the prompting of duty. As we are bidden to this exertion, so are we better able to make it than in the preceding season. The body, which was before unnerved, is now braced up to the extent of its capacity; and the mind, which was before dissipated by the fair variety of external attraction, collects and concentrates its powers, as those attractions fade and disappear. The natural limits of the day and night, also, conspire to the same end, and are in unison with the other intimations of the season. In summer, the days, glad to linger on the beautiful earth, almost exclude the quiet and contemplative nights, which are only long enough for sleep. But in the winter the latter gain the ascendancy. Slowly and royally they sweep back with their broad shadows, and hushing the earth with a double spell of darkness and coldness, issue their silent mandates, and—while the still snow falls, and the waters are congealed—call to reflection, to study, to mental labor and acquisition.

The long winter nights! Dark, cold, and stern as they seem, they are the friends of wisdom, the nurses of vigorous, patient, inquisitive, and untiring intellect. To some, indeed, they come particularly associated, when not with gloom, with various gay scenes of amusement, with lighted halls, lively music, and a few (hundred) friends. To others, the dearest scene which they present, is the cheerful fireside, instructive books, studious and industrious children and those friends, whether many or few, whom the heart and experience acknowledge as such. Society has claims; social intercourse is profitable as well as pleasant; amusements are naturally sought for by the young, and such as are innocent they may well partake of; but it may be asked whether, when amusements run into excess, they do not leave innocence behind them in the career; whether light social intercourse, when it takes up a great deal of time, has any thing valuable to pay in return for that time; and whether the claims of society can, in any way, be better satisfied, than by the intelligence, the sobriety, and the peaceableness of its members? Such qualities and habits must be acquired at home; and not by idleness even there, but by study. The winter evenings seem to be given to us, not exclusively, but chiefly, for instruction: They invite us to instruct ourselves, to instruct others, and to do our part in furnishing all proper means of instruction.

We must instruct ourselves. Whatever our age, condition, or occupation may be, this is a duty which we cannot safely neglect, and for the performance of which the season affords abundant opportunity. To know what other minds have done, is not the work of a moment; and it is only to be known from the records which they have left to themselves, or from what has been recorded of them. To instruct ourselves is necessarily our own work; but we cannot well instruct ourselves without learning from others. The stores of our own minds it is for ourselves to use to the best effect and to the greatest advantage; but if we do not acquire with diligence from external sources, there would be very few of us who would have any stores to use. Let no one undervalue intellectual means, who wishes to effect intellectual ends. The best workman will generally want the best tools, and best assortment of them.

We must instruct others. This duty belongs most especially to parents. All who have children have pupils. The winter evening is the chosen time to instruct them, when they have passed the tenderest years of their childhood. Those who have school tasks to learn should not be left to toil in solitude, but should be encouraged by the presence, and aided by the superior knowledge of their parents, whose pleasure as well as duty it should be to lend them a helping hand along the road, not always easy in learning. While the child is leaning over his book, the father and the mother should be nigh, that when he looks up with weariness and perplexity, he may find, at least, the assistance of sympathy. They need not be absolutely tied to the study table, but they should not often hesitate between the calls of amusement abroad, and the demand for parental example, guidance and companionship at home. They will lose no happiness by denying themselves many pleasures, and will find that the most brilliant of lustres are their own domestic lamps, and the cheerful and intelligent eyes of their children.

But all have not children; and the children of some are too young to be permitted to remain with their parents beyond the earliest hours of evening; and the children of others are old enough to accompany their parents abroad. For all those who think they could pleasantly and profitably recieve instruction of a public nature, and for this purpose spend an hour or two away from their homes, there is, happily, a plenty of instruction provided. Winter is the very season for public instruction, and it must be said to their honor, that our citizens have excellently improved it as such. Opportunities for gaining useful knowledge have been provided, and they have not been neglected by those for whom the provision has been made The fountains of water have been opened, and the thirsty have been refreshed. Though home instruction is to be placed at the head of all instruction, yet there are numbers who have not instruction at home, and numbers who have none at home to whom they may communicate instruction; and there are numbers who find it convenient and useful to mingle public and domestic instruction together, or alternate the one with the other. And when it is considered that the public lectures referred to, are charged with but little expense to the hearers; that they are delivered by the best and ablest men among us; that hundreds of youth resort to them, many of whom are in all probability saved from idleness, and some from vice and crime; and that to all who may attend them they afford a rational employment of time, we may look to the continuance of such means of knowledge and virtue as one of the most inestimable of benefits.—*Token for* 1835.

Hoven in Cattle.

We find in Lawrence, a high authority, the following prescriptions for this disease, which we copy on account of the safety and facility with which they may be tried, believing, without however knowing, that they may prove efficacious. The first is—an ounce of gun powder given to the beast in a pint of milk, or a less quantity of gin. The second—give an egg-shell full of tar.—*Ib.*

Ducks.—There are thirty-one species of this bird in North America, being just one less than are found in Europe. Twenty-one species are common to both continents, but ten of them are peculiar to America, and eleven to Europe.

Improved Stock.

DURHAM "Improved Short Horned" Cattle, consisting of *Bulls, Cows, Heifers* and *Calves*—New Leicester, Cotswould and South-down Sheep—Berkshire, China, and other improved breeds of Hogs, for sale at my farm, one mile south-west of Albany. Apply at Bement's Hotel, State-st.

CALEB N. BEMENT.

Albany, Feb. 1, 1835. feb 14-f3t*

R. Bronson,

Cultivator of Dyer's Madder, Bridgewater, Oneida Co. N. Y.

APPLICATION for the top Roots for spring planting must be made by the first of July preceding, and if funds for payment are deposited in the hands of Messrs. Butler, McDonnough & Co., forwarding merchants, Utica, and notice given by them, the roots will be forwarded to them for transportation in September or October following, and the money received. Madder Roots are dug in the fall, and buried until spring, like potatoes. The plant is perfectly hardy, and will do well in any climate in the United States. It has been discovered since my last communication to the public, that in planting eight bushels on an acre (double row) best upland deep rich loam, not over stiff and heavy, or over light and sandy, that the produce will be equal to five thousand pounds of ground madder in four years, and in a recent tour through Ohio, (in which state I have commenced the cultivation,) I think I have seen bottom land that would produce seven thousand pounds in a five year crop. I shall have 400 bushels for sale next fall, a considerable portion of which is engaged. Seventy-five thousand acres are wanted for the present consumption of the United States once in four years. Weight per bushel of Roots from 18 to 22 lbs., price under 6 bushels, $4 per bushel, over 6 and under 12, $3 50, over 12, $3. A communication detailing the late improved mode of culture, digging, washing, drying and grinding, will appear in a future number of this paper, probably next fall, after digging the 8 acres spoken of in the Genesee Farmer, No. 37, vol. 4; also see "Phinney's Calendar, or Western Almanac, for 1834," directions given for preparing the ground, &c. It will be forwarded on request by letter, post-paid.

N. B. I do not know of any roots for planting left of last year's digging. I have had application from several persons by letter during my absence, who inform me they are subscribers to the Farmer, and have their ground ploughed in the fall, or cultivated with corn last season. I answer to those and others, that I will supply them 8 bushels or less, each, if their residence is in the vicinity of the canal, as it will not be best to forward roots to applicants residing in other states when dug in the spring. Immediate application must be made, as it is necessary the Roots should be taken out of the ground as soon as the frost leaves it, and secured until the canal opens.

Bridgewater, Feb. 10, 1835. feb 14

Clover Seed,

OF both the large and small varieties.—Also, a quantity of White Field Peas, (from Canada,) and large white Marrowfat Peas, of superior quality, just received and for sale at the Rochester Seed Store. REYNOLDS & BATEHAM.

Rochester, Jan. 31, 1835. jan 31

Monroe Horticultural Garden & Nursery.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis, or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.

Greece, Monroe co. N. Y. Sept. 13, 1834.